

**S. 414 - Testimony to the Senate Subcommittee on Science,
Technology and Space by Dr. Marie V. McDemmond, President,
Norfolk State University (Norfolk, Virginia)- Russell Senate
Office Building (SR 253)**

Good afternoon, Mr. Chairman, distinguished members of the Senate Subcommittee on Science, Technology and Space and other honorable members of the United States Congress. My name is Marie V. McDemmond. I am the President of Norfolk State University, a comprehensive public institution of higher education in Norfolk, Virginia, and the largest of the five Virginia historically black colleges and universities (HBCUs) with 7000 students.

Since Norfolk State University opened its doors in 1935, the university has remained steadfast in its commitment to provide an affordable, high-quality education to an under-served population in its community, its state and the nation. The percentage of undergraduate students receiving financial aid at Norfolk State University is 88%. These students have an average median family household income of less than \$23,000. Since my arrival at Norfolk State in mid-1997, we have worked hard to ensure that our students remain eligible for federal financial aid and, with improved management, have lowered our direct student loan default rate in five years from 27% to 5.7%. For the last 65 years, NSU has made every effort to provide educational access to its culturally diverse and economically disadvantaged student population without placing unrealistic financial requirements upon them.

We all know that access to computers and the Internet and the ability to use effectively these new technologies are becoming increasingly important for full participation in America's economic, political and social arenas. In recent years, even though nationwide access to new technology has

exploded, there is still overwhelming evidence of an ever increasing Digital divide"-a compelling gap between those individuals and communities that have access to these tools and the training to use them, and those who do not.

I am here today to speak in support of legislation (S. 414), patroned by Senator Max Cleland. This bill represents an investment in America's most precious resource, its people. This bill would provide a new, and badly needed, grant program for minority-serving institutions across the country and would help eliminate the current inequities in computer and Internet access that exist between those with different levels of income and education. In October of 2000, the National Telecommunications and Information Administration produced a report called "An Assessment of Networking and Connectivity at Historically Black Colleges and Universities" for the U.S. Department of Commerce, and, as you know, that report drew everyone's attention to the immediacy of the access problem in lower socio-economic communities and at historically black colleges and universities. Figures released in the last year by Access Worldwide Communications indicate that

- Households with incomes of \$75,000 and higher are more than 20 times more likely to have access to the Internet than those at the lowest income levels.
- African American and Hispanic households are approximately one-third less likely to have home Internet access as other households.
- About one-third of the U.S. population uses the Internet at home, while only 16.1% of Hispanics and 18.9% of African Americans have Internet access at home.
- Although an increasing number of African American and Hispanic users are participating online, the overall divide is increasing as Internet utilization among the general population has also rapidly increased.

Over the last several decades the financing of public higher education in the United States has

been one of uncertainty. When it was good it was very good and when it was bad, negligible funds were available. In the case of minority-serving public institutions, our portion of the pie has never been quite enough. The funding needed at minority-serving institutions just to put the infrastructure in place to accommodate the new and emerging technologies is enormous. Investment in infrastructure is only the first step. Investment will also need to be made to sustain as well as to renew and refresh the technology necessary for a competitive education. And of course without the technology infrastructure and equipment, there is no means to train. Minority-serving institutions must play catch up, but they continue to fall further behind as new technologies are being developed faster than the speed of light.

Minority-serving colleges and universities across the country are searching for funding and support from private sources that will compliment the dwindling funding available at the state and federal levels of government. Most minority-serving institutions are just emerging as comprehensive colleges and universities, and Norfolk State is no exception. We do not have the same amount of private foundation resources or endowments as the larger, more established, traditionally white institutions (TWIs). We are working diligently to increase our endowments and increase our community and alumni support, but we still have a long way to go.

Norfolk State University currently serves a unique mission in educating a significant number of African-American professionals in the sciences and in technology. Within the last decade, Norfolk State University has increased the number of students enrolled in its computer science programs by 116% (from 197 to 425) and increased the number of students enrolled in computer technology by 32%.

Norfolk State University was one of the first universities to offer its students in non-technical fields the Virginia Internet-based Tek.Xam technology assessment exam proctored in its on-campus computer laboratories. In recent years, the number of student computers in campus labs at NSU has jumped from 600 to over 1,400 and all students have e-mail accounts. Every full-time faculty member has a desktop computer and Internet access.

In conjunction with the over 100 firms associated with the Virginia High Tech Partnership, Norfolk State is significantly increasing the number of minority interns and permanent hires in technology related fields of employment, having placed over 60 students in technology internships over the past three summers.

In our current efforts to bridge the digital divide Norfolk State University is:

- Working to restructure about 30 businesses to prepare them for the 21st century business model;
- Providing certifications in CISCO systems technologies;
- Partnering with the Small Business Administration and Empowerment 2010 to strengthen the business community's capacity to absorb new technology and know-how; and
- Attracting new businesses to the surrounding community and formulating plans to capture the economic benefits of our location in an Enterprise Community, Empowerment Zone, HUB Zone and Hope VI Community.

Norfolk State University must act as a catalyst to make sure the technology infrastructure is in place not only for its faculty and students but also for its surrounding community. Over the next two to five years, through a public-private partnership, Norfolk State University will lead a large scale effort to construct a telecommunications infrastructure - The Research and Innovation to Support Empowerment

(RISE) Center - that will support a complex technology development system within a bridging framework. RISE will be a self-sustaining facility that will act to spur economic development in the Enterprise Zone, Empowerment Zone, HUB Zone area surrounding the campus and will promote technology development, business formation, educational and research opportunities and workforce development. In the second and third phases of development, the RISE project includes a Science and Math Laboratory School for students K-6 and classrooms for distance learning programs. The private sector indicates that the RISE Center can create a network among several HBCUs and their respective communities and aggregate the economic potential emerging from expanded bandwidth and access. The facility has the potential to increase business partnerships and expand minority training in the management of technology infrastructure.

In Virginia, our former Governor, James Gilmore, and his predecessor, Governor George Allen, who I am happy to say is a former chair and now a member of this Senate subcommittee, established a model in the state for governing in the Internet age. Virginia has the first Secretary of Technology in the nation, the first Internet policy and was the first state to sign the Uniform Computer Information Transaction Act. Last year, a Commonwealth Technology Research Fund was created to help enable colleges and universities to better compete for federal and private research grants. As part of the Hampton Roads Partnership, we see our city and the Hampton Roads region accommodating the expansion of high technology businesses from Northern Virginia and elsewhere. The vision is in place, but funding will remain a critical issue if we are to train and educate the workforce needed in this decade and beyond. We are confident with his experience in the technology field, our current Governor of

Virginia, Mark Warner, will continue these efforts.

Many people think the world they know will last at least throughout their lifetime, if not forever. They believe that today's monumental changes somehow will not affect them and that the future will continue as the present. If you have lived in poverty and without much hope, it has to be paramount in your mind that there is truly a way out, a way to a better more productive life, and a way to use the brainpower you know you have. What the minority communities need to believe is that:

- Their preschool children will have safe daycare where computers offer the same exploration to these 1 to 4 year olds as to their middle and upper class counterparts;
- Their elementary school youngsters can surf the web to complete homework assignments and explore the challenging thoughts that present themselves while on line;
- Their traditional age students, or older, in colleges and universities know how to use all of the search engines and research programs available on campus, regardless of the amount of their tuition or the size of the institution's endowments; and
- Their senior citizens, often homebound, and others in their communities who are physically challenged, have computer skills and access to order their groceries, expand their minds or e-mail their children and grandchildren, no matter what their socioeconomic status or zip code.

Minorities are a vital part of the first generation of a new and glorious millennium of growth and development for our country - a country that needs our full participation. Minority-serving institutions have a unique challenge in educating students with little or no preparation for the work world they are about to enter. Many of the simplest of tasks we take for granted in the workplace today (making a phone call or sending a fax) are the by-products of years and years of educational and cultural development. Each new generation has learned how to accomplish these tasks, adapted their skills and

made their processes better and better. Today we are reorganizing and rebuilding business and industry and even whole national economies, and in that process we are also redistributing knowledge and the way we communicate knowledge. There is a high demand in the United States today for skilled, knowledgeable workers. Our most important businesses and industries are not just computer and electronics firms, but also advanced, information-driven companies with an educated and diverse workforce, a workforce of people who prize their diversity and will be successful because of it. There is a national shortage of information and communication technology professionals, and as minority-serving institutions we can educate our own to fill this gap. It is critical that our government takes an active role in the installation, development and use of information and communication technologies across economic as well as geographic lines so that America will have its own diverse trained workforce.

Over the course of our nation's history, the view of higher education as a central element of our economic and social well-being has been widely acknowledged. Thomas Jefferson wrote of this concept when he said, " I think by far the most important bill in our whole code is that for the diffusion of knowledge among the people. No other sure foundation can be devised for the preservation of freedom and happiness." Jefferson's world, two hundred years ago, was a vastly different place than the world today. However, our increasing dependence on knowledge and information today continues to recognize the importance of Mr. Jefferson's words and acknowledges the importance of colleges and universities as the generators of that knowledge and information.

For more than two decades, enrollment at public colleges and universities has gradually risen;

more than 77% of higher education is provided in public colleges and universities today. Projections for the coming decade show the total climbing further. Much of the recent growth has been among historically under-served and under-represented populations - racial and ethnic minorities, first generation college students - who bring a number of unique academic and co-curricular needs to our campuses. We must educate America's own to fill the high tech jobs of this century. The future demands that we have the technological resources to prepare these students.

The Senate bill you are considering in this subcommittee to establish a \$250 million pool of funds through the National Telecommunications and Information Administration Digital Network Technology Program Act will not fill the total gap in technology access between the haves and the have-nots, but it is a critical step in the right direction. This fund is an investment and an incentive for us all in providing digital opportunities for the communities and the students we serve.

As the president of a public institution of higher learning and a historically black university, I want to ensure that the students we serve are achieving with Excellence" and that each one has the opportunity to be the best he or she can possibly be. We must transform the digital divide that challenges us today into the digital resources and opportunities of tomorrow for all Americans regardless of their heritage or socio-economic status.

I want to thank you for your thoughtful consideration of this legislation. The education of our next generation of leaders must be a team effort, and you are a critical part of that team.